

**Issue: DCA10-DEC-220, 221, 222, 224, and 225** by John Kampmann, PE of MEA Engineering, Inc. The Petitioner is requesting clarification with regard to Section 1613.1.9 of the FBC, Building.

**Background:**

**Situation:**

The Petitioner is representing Hurricane Fabric, Florida Product Approval FLs # 12573, 11340, 13271, 13910 and 12888 “Shutters”

**2007 Florida Building Code:**

Section 1613.1 Allowable deflections. The deflection of any structural member or component when subjected to live, wind and other superimposed loads set forth herein shall not exceed the following:

1. Roof and ceiling or components supporting plaster L/360
2. Roof members or components not supporting plaster under L/240
3. Floor members or components L/360
4. Vertical members and wall members or components consisting of or supporting material that hardens in place, is brittle or lacks resistance to cracking caused by bending strains L/360
5. Vertical members and wall members or components not required to meet the conditions of Section 1613.1, item 4 L/180
6. Roof and vertical members, wall members and panels of carports, canopies, marquees, patio covers, utility sheds and similar minor structures not to be considered living areas, where the roof projection is greater than 12 feet (3.7 m) in the direction of the span, for free-standing roofs and roofs supported by existing structures. Existing structures supporting such roofs shall be capable of supporting the additional loading L/180
7. For Group R3 occupancies only, roof and vertical members, wall members and panels of carports, canopies, marquees, patio covers, utility sheds and similar minor structures not to be considered living areas, where the roof projection is 12 feet (3.7 m) or less in the direction of the span and for free standing roofs and roofs supported by existing structures L/80
8. Members supporting screens only L/80
9. Storm shutters and fold-down awnings, which in the closed position shall provide a minimum clear separation from the glass of 1 inch (25 mm) but not to exceed 2 inches (51 mm) when the shutter or awning is at its maximum point of permissible deflection L/30

10. Roofs and exterior walls of utility sheds having maximum dimensions of 10 feet (3 m) length, 10 feet (3 m) width, and 7 feet (2.1 m) height L/80

11. Roofs and exterior walls of storage buildings larger than utility sheds L/180

**Staff recommendation:**

Question #. 1: Does L/30 apply to fabric shutters? Fabrics do not have a loss of performance with deflections. It is my understanding that L/30 only applies to rigid materials.

Answer: Yes, Section 1613.1.9, Item (9), applies to all storm shutters regardless of the products' materials or physical properties.

Question #. 2: Under what circumstances would this product be able to get a FL Approval for HVHZ? Would this project be able to get an HVHZ approval for installations that limited its use for NON-GLAZING installations, such as on the exterior of non-glazed lanais, vents, doors - including garage doors, and any other non-glazing installations?

Answer:

Section 1613.1.9, Item (9), is applicable to an opening regardless of whether it is a glazed opening or not.

Question #. 3. Would this product be able to be considered as part of a panel wall system, providing impact protection while maintaining a separation between this product and the panel wall system?

Answer: Not possible. The question is outside the scope of the product in question.

Question #. 4: Could this product be considered as a structural component for use in the HVHZ?

Answer: Not possible. The question is outside the scope of the product in question.

Question #. 5: Can this product be installed in the HVHZ and protect glazing as long as the deflection of the fabric exceeds a separation to glazing of 1 inch?

Answer: See answer to Question #1.

Question #. 6: Please clarify the language in 1613.1.9: "...shall provide a minimum clear separation from the glass of 1 inch (25mm) but not to exceed 2 inches (51mm) when the shutter or awning is at its maximum point of permissible deflection..." Specifically, what is the required separation to glass, including any limitations such as maximum deflection. The language in 1613.1.9 says that the separation to glass must be between 1 and 2 inches when at its maximum permissible deflection. The 2 inches is mentioned relative to clear separation, not relative to deflection as written. Some have said that there is a maximum 2 inch deflection limit, but I have not found that language in the code. If that is an interpretation of 1613.1.9, please explain it, the words do not support that definition to me.

Answer: Not possible. No specific question provided.

Question #. 7: In 1613.1.9, is the maximum deflection  $L/30$ ?

Answer: Yes, if the opening is not a glazed opening.

Question #. 8: Is it also another fixed amount regardless of the span, such as 2 inches? If so, where in the code is this written?

Answer: Maximum deflection is  $L/30$  but not to exceed 2 inches if the opening is a glazed opening.